

CLAIMSWHAT IS CLAIMED:

1. A medical electrical lead, comprising:
5 a distal end portion of the lead capable of insertion into the coronary sinus of a patient;
and
a distribution device attached to the distal end portion of the lead adapted for dissipation
of a material into the coronary sinus and into a cardiac vein.
- 10 2. A medical electrical lead, as set forth in claim 1, wherein the material is a
vasodilating agent.
3. A medical electrical lead, as set forth in claim 1, wherein the lead is an over-the-
15 wire lead.
4. A medical electrical lead, as set forth in claim 1, wherein said lead comprises an
elongated flexible body.
5. A medical electrical lead, as set forth in claim 4, wherein the elongated flexible
20 body comprises a flexible tube.
6. A medical electrical lead, as set forth in claim 4, wherein the elongated flexible
body comprises a tube constructed with material selected from the group consisting of
polyurethane and silicone.
- 25 7. A medical electrical lead, as set forth in claim 4, wherein said lead is tapered
along a longitudinal axis of the elongated flexible body.
8. A medical electrical lead, as set forth in claim 1, wherein the lead comprises a
30 core of electrically conductive material surrounded by a layer of insulative material.
9. A medical electrical lead, as set forth in claim 1, wherein the lead comprises an
electrode coupled to its distal end.

10. A medical electrical lead, as set forth in claim 1, wherein the lead comprises an expandable helical coil coupled to its distal end.

5 11. An apparatus, comprising:
a lead having a first electrode positioned adjacent a distal end portion thereof; and
means for dispersing at least one vasodilating agent adjacent the distal end portion.

10 12. A medical catheter device, comprising:
a flexible tubular body having a distal end and a proximal end;
a first lumen disposed within the flexible tubular body capable of transporting an
electrical lead through the first lumen and out the distal end of the flexible tubular
body; and
15 means of dispersing a vasodilating agent adjacent the distal end of the flexible tubular
body.

20 13. The medical catheter device of claim 12, wherein the means of dissipating a
vasodilating agent further comprises a distribution device attached near the distal end of the
tubular body.

25 14. The medical catheter device of claim 13, wherein the distribution device attached
near the distal end of the tubular body comprises a chemically modified material.

30 15. The medical catheter device of claim 13, wherein the distribution device attached
near the distal end of the tubular body comprises a sponge-like saturated material.

16. The medical catheter device of claim 13, wherein the catheter device further
comprises a second lumen for transporting the vasodilating agent from the proximal end to the
distal end of the tubular body.

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17. A medical catheter device, comprising:
a flexible tubular body having a distal end and a proximal end;
a first lumen disposed within the flexible tubular body capable of transporting an
electrical lead through the first lumen and out the distal end of the flexible tubular
body; and
a distribution device capable of emitting a vasodilating agent adjacent the distal end of the
flexible tubular body.

18. The medical catheter device of claim 17, wherein the catheter device further
comprises a second lumen for transporting the vasodilating agent from the proximal end to the
distal end of the tubular body.

19. A method for positioning a medical electrical lead in a cardiac vein, comprising:
inserting a lead within a portion of a patient's body;
dispersing at least one vasodilating agent to dilate at least one vessel; and
inserting the lead into a dilated vessel.

20. The method of claim 19, wherein the at least one vessel comprises a cardiac vein.

21. The method of claim 20, further comprising anchoring the lead within the cardiac
vein.

22. The method of claim 20, wherein the lead is inserted within the dilated cardiac
vein to a location adjacent to a left ventricular portion of a heart.

23. A method of positioning a medical electrical lead, comprising:
providing a lead having an electrode coupled adjacent a distal end portion thereof;
inserting the distal end portion of the lead into a cardiac vein of a patient; and
dispersing at least one vasodilating agent adjacent the distal end of the lead, wherein the
vasodilating agent dilates the cardiac vein and enables the insertion of the lead
into a more distal location within the cardiac vein.

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24. The method of claim 23, further comprising anchoring the lead within the cardiac vein.

25. The method of claim 23, further comprising:
5 inserting a guide wire within a cardiac vein prior to inserting the lead into the cardiac vein.

26. The method of claim 23, wherein the lead is an over-the-wire lead that is guided into the cardiac vein by a guide wire.

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27. A method of inserting an electrical lead into a cardiac vein, comprising:
providing a catheter device having a first axial lumen and a distal end;
inserting the catheter device into a patient's coronary sinus;
dispersing a vasodilating agent into the coronary sinus and at least one cardiac vein,
15 thereby dilating a cardiac vein; and
inserting an electrical lead into the dilated cardiac vein.

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28. The method of claim 27, further comprising:
inserting the electrical lead through the first lumen of the catheter device;
fixing the location of the electrical lead within the cardiac vein; and
removing the catheter device from the patient while leaving the electrical lead implanted
within the cardiac vein.

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29. The method of claim 27, further comprising:
injecting the vasodilating agent through a second axial lumen within the catheter device
and dispensing the vasodilating agent at the distal end of the catheter device.

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30. A method of therapeutic treatment of the left ventricle portion of a heart, comprising:

contacting a vasodilating agent with at least one cardiac vein, thereby dilating at least one cardiac vein; and

5 inserting an electrical lead within a dilated cardiac vein, whereby the electrical lead is positioned within the cardiac vein adjacent the left ventricle of the heart.

31. The method of claim 30, further comprising:

connecting the electrical lead to an implantable medical device.

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